

1 This listing of claims will replace all prior versions, and listings, of claims
2 in the application.

3
4 **Listing of Claims:**

5
6 Claim 1 (Currently amended): A method of synchronizing asynchronous
7 time-based and motion capture data in a system in which the time-based data and
8 the motion capture data are transmitted as multiple data streams by [[a]] one or
9 more servers over a network to a client, the method comprising:

10 retrieving a time-based data stream and a motion capture data stream at the
11 one or more [[the]] servers, each stream comprising frames of data;

12 variably buffering one of the time-based data stream and the motion capture
13 data stream at each of the one or more [[the]] servers to produce output data
14 [[two]] data streams sent from the one or more servers, wherein the output data
15 streams having have synchronized frames;

16 receiving as inputs the output data streams from the one or more servers at
17 the client;

18 ~~multicasting separately the two streams; and~~
19 ~~synchronizing the output data streams at the using the synchronized frames~~
20 ~~at the client for playback of synchronized motion capture data and time-based data~~
21 ~~to a user.~~

22
23 Claim 2 (Canceled)
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25

1 Claim 3 (Currently amended): The method of claim 1 further including
2 calculating a difference between delays for the motion capture data stream and the
3 time-based data stream ~~through~~ at each of the one or more ~~[[the]]~~ servers to
4 determine an amount of variable buffering for a faster of the two streams.
5

6 Claim 4 (Original): The method of claim 1 further including transferring
7 only those data values for a frame that have changed since a last frame was
8 transmitted.
9

10 Claim 5 (Original): The method of claim 1 wherein the network is the
11 Internet.
12

13 Claim 6 (Previously presented): The method of claim 1 wherein the
14 motion capture data is mapped to control the movement of a virtual figure
15 displayed in a scene at the client.
16

17 Claim 7 (Previously presented): The method of claim 1 wherein the
18 motion capture data is generated by a body suit.
19

20 Claim 8 (Previously presented): The method of claim 1 wherein the
21 motion capture data includes background data for use in producing a scene at the
22 server.
23
24
25

1 Claim 9 (Previously presented): The method of claim 1 wherein data
2 transfer from the server to the client is concurrent with the receipt of the time-
3 based data stream and motion capture data stream at the server.

4
5 Claim 10 (Original): The method of claim 1 wherein the time-based data is
6 voice data.

7
8 Claim 11 (Original): The method of claim 1 wherein the synchronized data
9 frames include one or more data channels, the server transmitting on the network
10 at a predetermined interval between synchronized data frames a descriptor packet
11 which describes each channel contained in the synchronized data frames such that
12 a client may join in progress a multicast of synchronized data frames.

13
14 Claim 12 (Previously presented): The method of claim 1 wherein the time-
15 based data is a pre-recorded audio track and the method further includes
16 synchronizing playback of the pre-recorded audio track at the server and buffering
17 of the pre-recorded audio track to allow for coupling with motion capture data
18 generated in time with the playback of the pre-recorded audio track.

19
20 Claim 13 (Original): The method of claim 1 further including sequencing
21 synchronized frames output from the server to the client to provide for ordered
22 playback of the synchronized frames to a user at the client.

1 Claim 14 (Currently amended): A method of packaging synchronized
2 frames of three-dimensional motion data and time-based data where each frame
3 includes one or more channels of data in a system in which synchronized frames of
4 three-dimensional motion data and time-based data are transmitted by as data
5 streams by one or more [[a]] servers over a network to a client, the method
6 comprising:

7 storing a last data value for each channel in each synchronized frame of
8 three-dimensional motion data and time-based data transmitted over the network;

9 retrieving new synchronized frames of three-dimensional motion data and
10 time-based data for transmission over the network; [[and]]

11 packaging and transmitting ~~through separate streams~~ over the network only
12 data for channels having changed data values; and

13 synchronizing at the client, the data streams received from the one or more
14 servers.

15
16 Claim 15 (Original): The method of claim 14 further including transmitting
17 a descriptor packet at a predetermined interval over the network, the descriptor
18 packet including channel descriptors for each channel in the synchronized frames.

19
20 Claim 16 (Canceled)

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22 Claim 17 (Canceled)

23
24 Claim 18 (Canceled)

1 Claim 19 (Currently amended): A method for playing back time-based
2 and motion capture data that has been synchronized and received as multiple input
3 data separate streams from one or more servers of data comprising:

4 synchronizing the multiple input data streams;

5 mapping ~~[[the]]~~ motion capture data received in ~~one or more of the separate~~
6 the input data streams to control the movement of a virtual figure in a scene
7 displayed at a client; and

8 playing back in synchronization with movement of the virtual figure the
9 time-based data received in ~~one or more of the separate~~ input data streams.

10
11 Claim 20 (Currently amended): A method of synchronizing asynchronous
12 three-dimensional motion data and audio data at a server computer in a system in
13 which the three-dimensional motion data and the audio data are transmitted as
14 multiple inputs by one or more ~~through separate streams by the~~ server computers to
15 one or more clients, the clients providing a real time output of synchronized
16 motion and audio data, the method comprising:

17 retrieving an audio stream ~~of the separate streams~~ including voice data and
18 a three-dimensional motion data stream of the separate streams including one or
19 more motion data channels at the server, each stream including frames of data;

20 calculating a delay through the one or more server computers for a frame of
21 data on each of the streams;

22 calculating a difference between the delay for the audio stream and the
23 three-dimensional motion data stream to determine which of the two streams is
24 faster;

1 variably buffering a faster of the streams to synchronize the audio stream
2 and the three-dimensional motion data stream resulting in two output streams
3 having synchronized data frames;

4 packaging the synchronized data frames;

5 multicasting the synchronized data frames as multiple data streams that are
6 the multiple inputs to one or more clients over a network; and

7 at each client computer, synchronizing the multiple data streams using the
8 synchronized data frames for synchronous playback of the audio and three-
9 dimensional motion data for display to a user.

10
11 Claim 21 (Previously presented): The method of claim 1 wherein the
12 motion capture data is sensor data.

13
14 Claim 22 (Previously presented): The method of claim 14 wherein the
15 three-dimensional motion data is sensor data.

16
17 Claim 23 (Canceled)

18
19 Claim 24 (Previously presented): The method of claim 19 wherein the
20 motion capture data is sensor data.

21
22 Claim 25 (Previously presented): The method of claim 20 wherein the
23 three-dimensional motion data is sensor data.

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25 Claim 26 (Canceled)

1
2 Claim 27 (Canceled)

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4 Claim 28 (Canceled)

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6 Claim 29 (Canceled)

7
8 Claim 30 (Canceled)

9
10 Claim 31 (New): The method of claim 1 wherein the motion capture data
11 includes a time stamp.

12
13 Claim 32 (New): The method of claim 14 wherein the three-dimensional
14 motion data includes a time stamp.

15
16 Claim 33 (New): The method of claim 19 wherein the motion capture data
17 includes a time stamp.

18
19 Claim 34 (New): The method of claim 20 wherein the three-dimensional
20 motion data includes a time stamp.